CORE DESCRIPTION
BLM-8-418
432' - 442'
(100% Recovery, RQD = 98%, Excellent rock quality)

CUEVA TUFF:

Pinkish gray (5 YR 8/1), dry, to light gray (N7), wet, massive, vesicular lithic-crystal rhyolite (?) ash-flow tuff. The tuff displays no apparent flow structure, is poorly welded, and soft (can be scratched with fingernail but not indented with thumb).

The tuff is rich in lithic and glassy fragments. Phenocrysts and pumaceous clasts are also present. Exotic fragments total 40-50% of the sample. Lithic fragments range in size from .04 inches to several inches and consist of andesite, granite, and pumice. Smaller lithic fragments are unidentifiable in hand sample. Phenocrysts range in size from <.04 inches to .16 inches, are subhedral to anhedral, and consist of quartz, feldspar, and mafic minerals (garnet?)

Fractures are present throughout the core sample. Fractures range from .12 inches to .5 inches thick and are oriented 20^{0}-45^{0} from vertical. Post-fracture features include thin zones of complete or partial tuff alteration along fractures and prismatic, milky, calcite filling veins and veinlets. Zones of tuff alteration are lighter in color, gray orange pink (5 yr 7/2) to medium light gray (N6), and very effervescent.

432.5'-433' A large clast (1.25 inches) of pumice and a xenolith (3.5 inches) of grayish red purple (5RP 4/2) andesite are present. An area of alteration occurs above the andesite xenolith.

433.5'-435' A large fracture is present displaying thick (up to 2 inches) zones of tuff alteration. The altered tuff is very soft and friable. Also present are veins filled with milky prismatic calcite and a vug filled with transparent euhedral calcite.

437.5'-441' This interval contains two fractures ranging from .25 to .50 inches thick. The fractures are oriented 45^{0} from vertical and are perpendicular to each other. Both fractures exhibit zones of partial or complete alteration of the tuff.

The tuff has a visual porosity of approximately 35%. This rock unit is probably highly transmissive because of the abundant vesicles and fractures present.

Note: Core pieces are sequentially numbered from top to bottom, with directional arrows in the up direction.